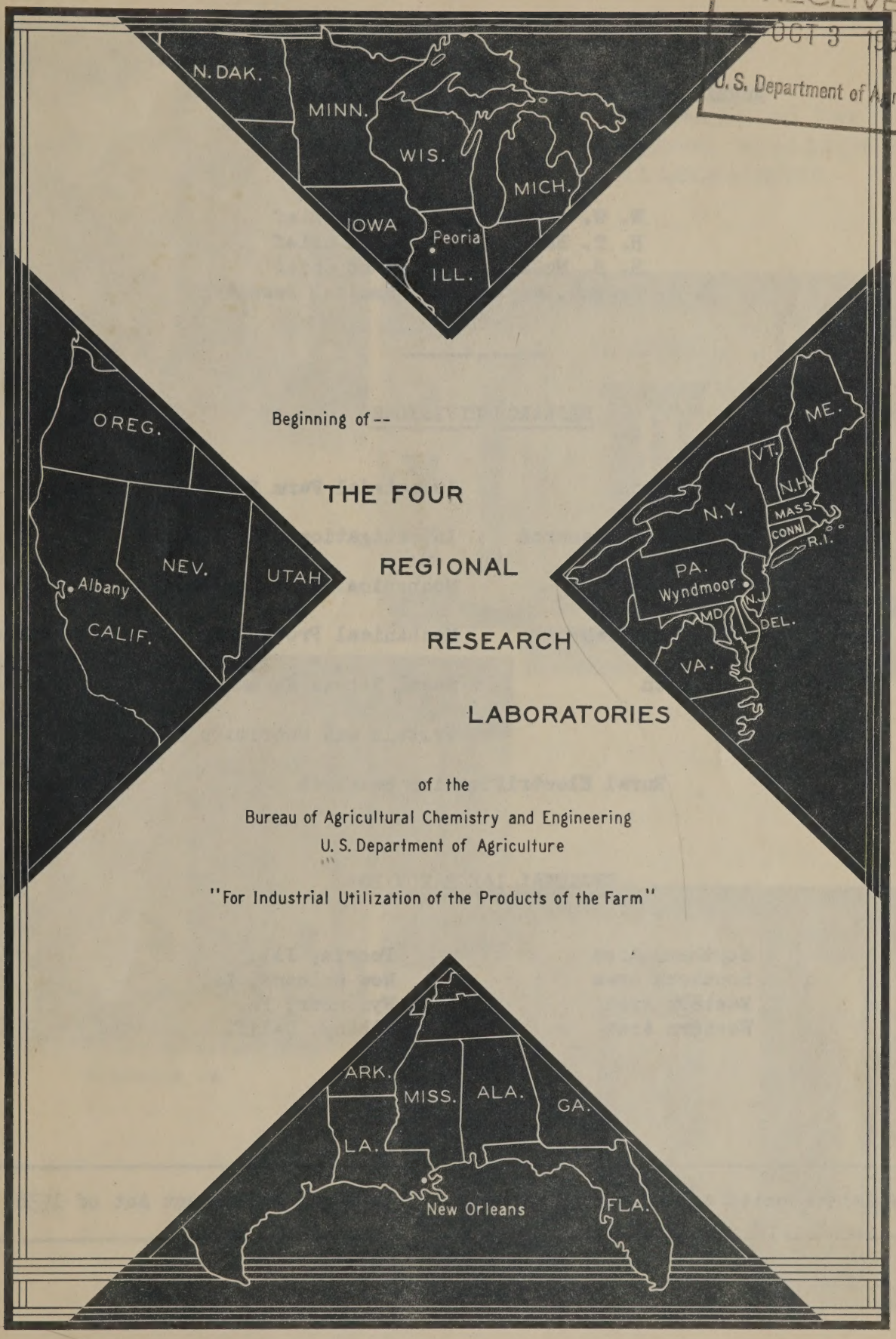


Beginning of --

THE FOUR REGIONAL RESEARCH LABORATORIES

of the

Bureau of Agricultural Chemistry and Engineering
U. S. Department of Agriculture

"For Industrial Utilization of the Products of the Farm"

BUREAU OF AGRICULTURAL CHEMISTRY AND ENGINEERING

Henry G. Knight, Chief
W. W. Skinner, Associate Chief
H. T. Herrick, Assistant Chief
S. H. McCrory, Assistant Chief
C. A. Browne, Adviser in Chemical Research

RESEARCH DIVISIONS

Carbohydrate Research	Industrial Farm Products Research
Chemical Engineering Research	Investigation of Allergens
Farm Operating Efficiency	Mechanical Farm Equipment Research
Farm Structures Research	Mechanical Processing of Farm Products
Fertilizer Research	Naval Stores Research
Food Research	Protein and Nutrition Research

Rural Electrification Research

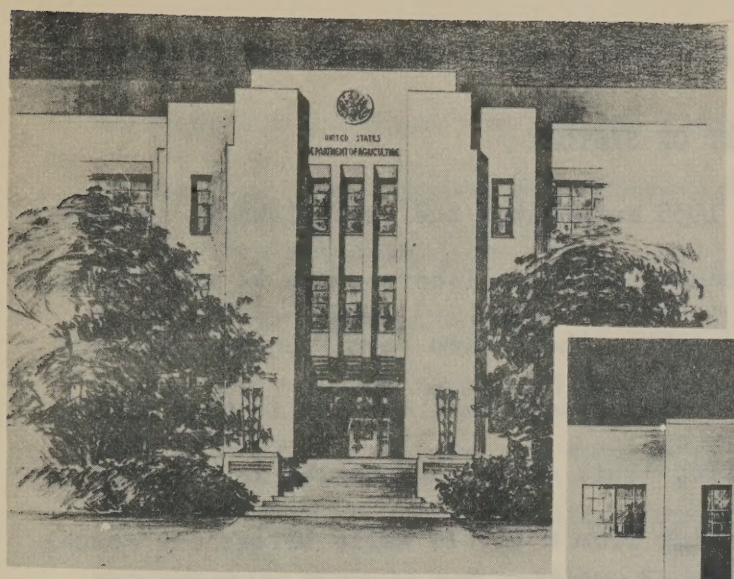
REGIONAL LABORATORIES*

Northern Area	Peoria, Ill.
Southern Area	New Orleans, La.
Eastern Area	Wyndmoor, Pa.
Western Area	Albany, Calif.

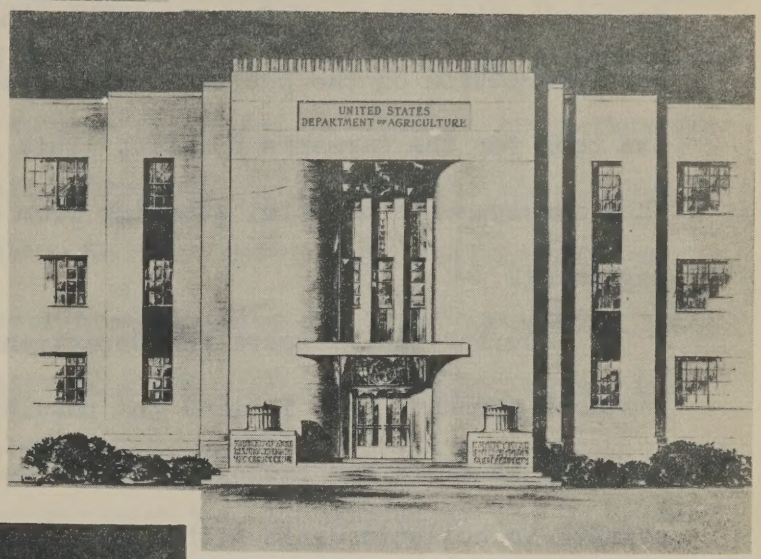
* Laboratories established under the Agricultural Adjustment Act of 1938.

August 15, 1939

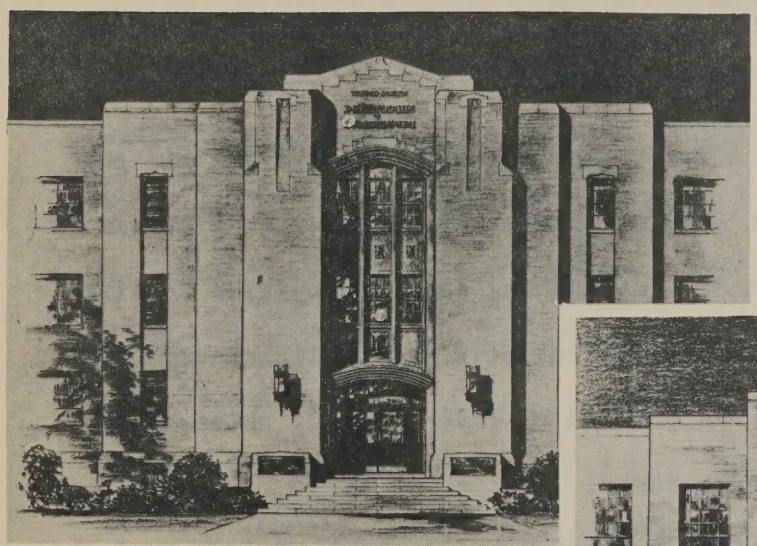
ENTRANCES TO THE REGIONAL RESEARCH LABORATORIES



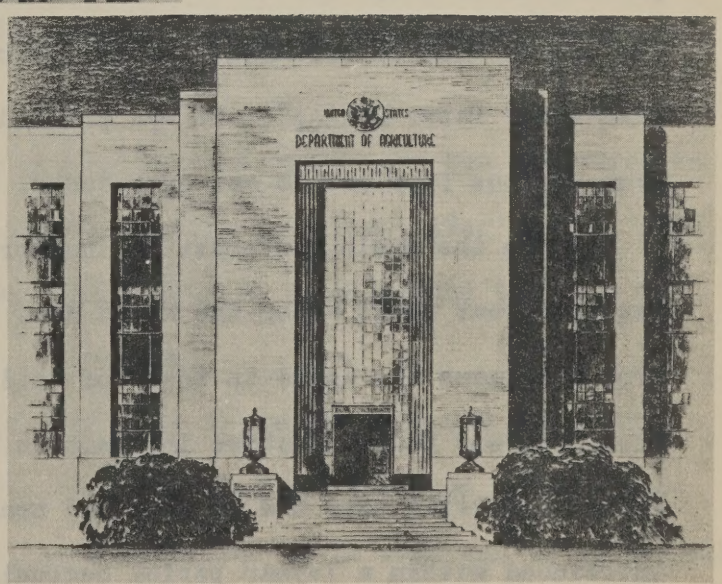
ALBANY, CALIF.



PEORIA, ILL.



WYNDMOOR, PA.



NEW ORLEANS, LA.

A BIT OF HISTORY

Ever since Congress in 1938 authorized the establishment and operation of four regional farm products research laboratories to work on industrial utilization of farm products, there have been frequent requests for information on the progress being made toward the realization of this new tool for the farmer's benefit. This small publication is intended to show developments to date, starting from a little while before the actual beginning.

During the 77 years the Department of Agriculture has existed, its research men have kept in mind the possibility of greater use of farm commodities in mills and factories. What was perhaps the Department's first scientific bulletin dealt with some of the possibilities of an American wine-making industry.

As years went by, there were other research efforts in this same industrial direction, although most attention was centered on problems of production of crops and livestock and handling farm commodities destined for use as food or clothing. In 1911 a bulletin was published on "Crop Plants for Paper Making". It was printed on five kinds of paper, made from various farm wastes and byproducts.

On the whole, interest in industrial utilization of farm products was not great until after the World War, when the problem of dealing with crop surpluses was added to those of utilizing crop wastes and byproducts. Then Congress took an active interest in the possibilities of developing wider industrial uses and to this end nearly 30 bills of this nature were introduced within a 7-year period beginning with 1928. One such bill, in-

troduced in 1937, finally became Section 202 of the Soil Conservation and Domestic Allotment Act for the fiscal year 1939. This was the start of the four regional research laboratories.

The Act went into effect July 1, 1938. It provided that "the Secretary (of Agriculture) is hereby authorized and directed to establish, equip, and maintain four regional research laboratories, one in each major farm producing area, and, at such laboratories, to conduct researches into and to develop new scientific, chemical, and technical uses and new and extended markets and outlets for farm commodities and products and byproducts thereof. Such research and development shall be devoted primarily to those farm commodities in which there are regular or seasonal surpluses, and their products and byproducts".

To carry out the above purposes the Act authorized and directed the Secretary "to cooperate with other departments or agencies of the Federal Government, States, State agricultural experiment stations, and other State agencies and institutions, counties, municipalities, business or other organizations, corporations, associations, universities, scientific societies, and individuals, upon such terms and conditions as he may prescribe".

To finance the laboratories, the Act authorized the Secretary to utilize in each fiscal year, beginning with the fiscal year July 1, 1938, a sum not to exceed $4,000,000; one-fourth to be allocated annually to each of the four laboratories established.

Congress also provided that "not to exceed $100,000 shall be available -- to conduct a survey to determine the location of said laboratories and the scope of the investigations to be made and to coordinate the research work now being carried on".

Preparations Begin

To start the wheels of this new research venture, Secretary Wallace on February 16, 1938, appointed a special departmental committee to designate the States to be included in each of the "four major producing areas" mentioned in the Act and to select those commodities to be included in the initial phases of the proposed research program. As a result of the recommendations of this committee, the Secretary, on August 15, 1938, announced the States to be included in the four areas as shown in the section of a press release reproduced below:

The areas designated by Secretary Wallace, upon recommendation of a departmental committee, are to be known as the Southern, Eastern, Northern, and Western major farm producing areas. The States included in these areas are:

Southern Area: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, and Texas.

Eastern Area: Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Tennessee, Vermont, Virginia, and West Virginia.

Northern Area: Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, and Michigan.

Western Area: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

In deciding on this grouping of States, the Secretary took into account the distribution and type of agricultural production, farm population, farm income, value of farm property, total population, and other facts.

U. S. DEPARTMENT OF AGRICULTURE

A section of the departmental committee's report on commodities recommended to be studied in each of the four laboratories is given here:

II. Commodities for Initial Part of Laboratory Program.

The commodities upon which it is proposed to concentrate the work in the initial stages of the program are as follows:

Southern:

Cotton
Sweet potatoes
Peanuts

Eastern:

Tobacco
Apples
Irish potatoes
Milk products
Vegetables

Northern:

Corn
Wheat
Agricultural waste products

Western:

Fruits (other than Apples) and Vegetables
Irish potatoes
Wheat
Alfalfa

In naming these commodities the committee took into account various considerations, principally the geographical extent, the size and the persistence of surplus problems in these commodities. Whether studied from the standpoint of exportable surpluses or surpluses for domestic use, it is clear that these particular commodities must be listed as presenting surplus problems of first rank and therefore subject to first research attack under Section 202.

SPECIAL COMMITTEE PLANS

On June 16, 1938, Secretary Wallace, in Memorandum No. 758, designated a Special Committee on Regional Laboratory Plans and Specifications. A section of this memorandum is reproduced below:

MEMORANDUM NO. 758

Designating Special Committee on Regional Laboratory Plans and Specifications

There is hereby designated a committee on plans and specifications for the regional laboratories authorized under Title II, Section 202, of the Agricultural Adjustment Act of 1938, consisting of:

Dr. David J. Price, BCS, Chairman
Mr. George R. Boyd, BAEng.
Mr. Robert M. Baker, BCS
Mr. Frank J. Sette, Secy's Ofc

The committee may be enlarged later if this seems desirable.

The main purpose of this committee will be to receive all suggestions as to construction, space, and fixed equipment, and to cooperate with the architect in the development of plans and specifications for the main laboratory buildings.

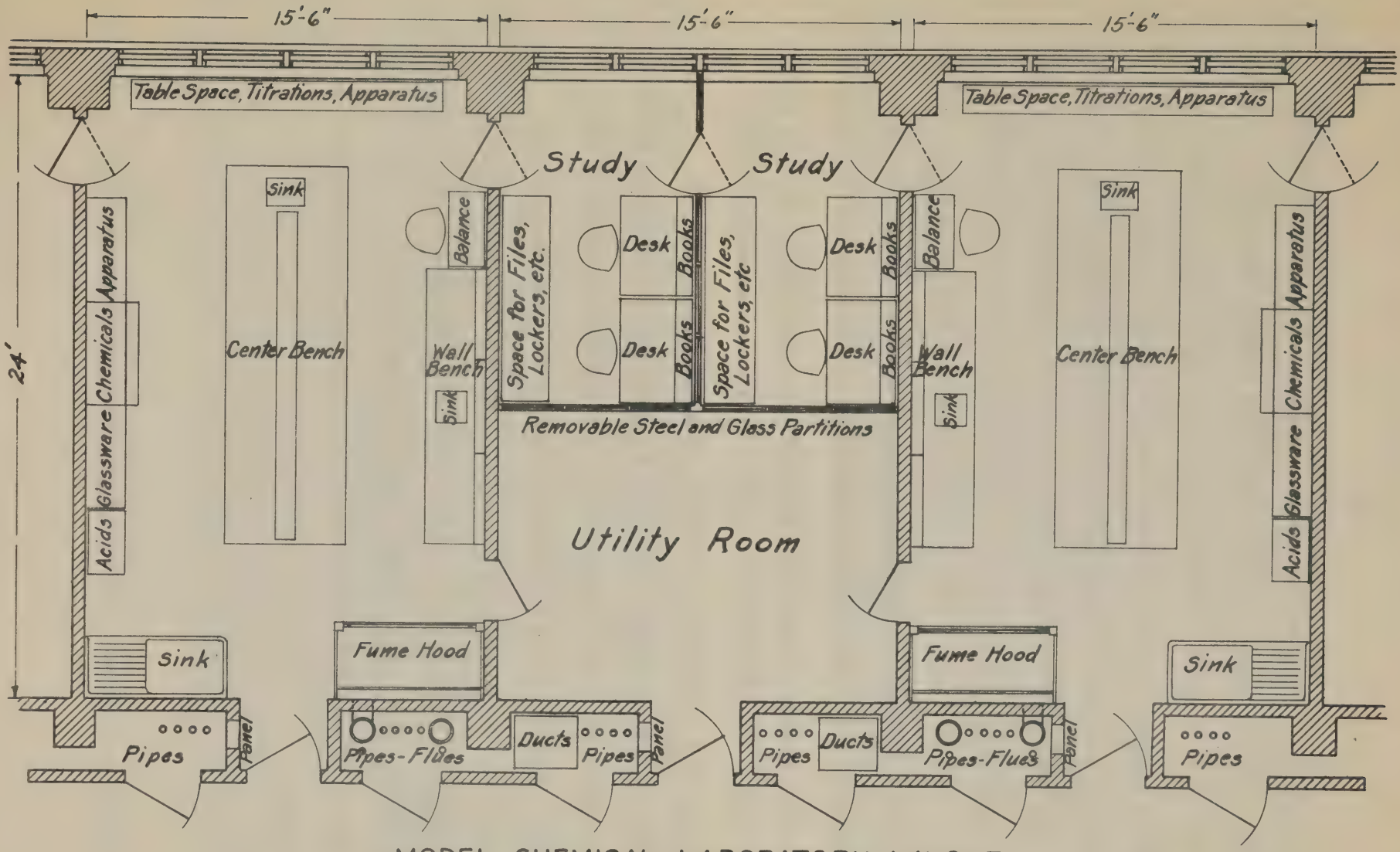
H A Wallace

Secretary.

This Committee, which was responsible for all matters pertaining to the planning and arrangement of the buildings, decided that it would be desirable to design an all-service laboratory building providing for both chemical laboratories and pilot plant operations.

The Committee approved the report of May 24, 1938, by a previous Special Committee consisting of representatives of the Bureau Divisions directly interested, on a model chemical laboratory lay-out. For a group of technical scientific workers such as are expected to conduct research work in these regional laboratories, this Committee felt that due consideration should be given to time spent in study and planning the work as well as time spent at the laboratory bench. It was, therefore, recommended that each group of two laboratories be separated by an office and "utility" room (see plan on page 11). A model chemical laboratory measuring 24 feet between the corridor and the outside wall with a width of approximately 15 feet 6 inches was designed. This room accommodates two technical workers and will provide space for a free-standing laboratory bench, a wall bench on one side, a fume hood, a wash sink, and a large storage cabinet for glassware, chemicals, and apparatus. This new arrangement, featuring an office and utility room, provides 270 square feet per worker.

The Special Committee on Regional Laboratory Plans and Specifications decided that all four laboratory buildings should be U-shaped buildings about the same dimensions, three stories and basement. The front, or base, of the U, to be used for administration offices, will be



MODEL CHEMICAL LABORATORY LAYOUT

CHEMICAL ENGINEERING RESEARCH DIVISION

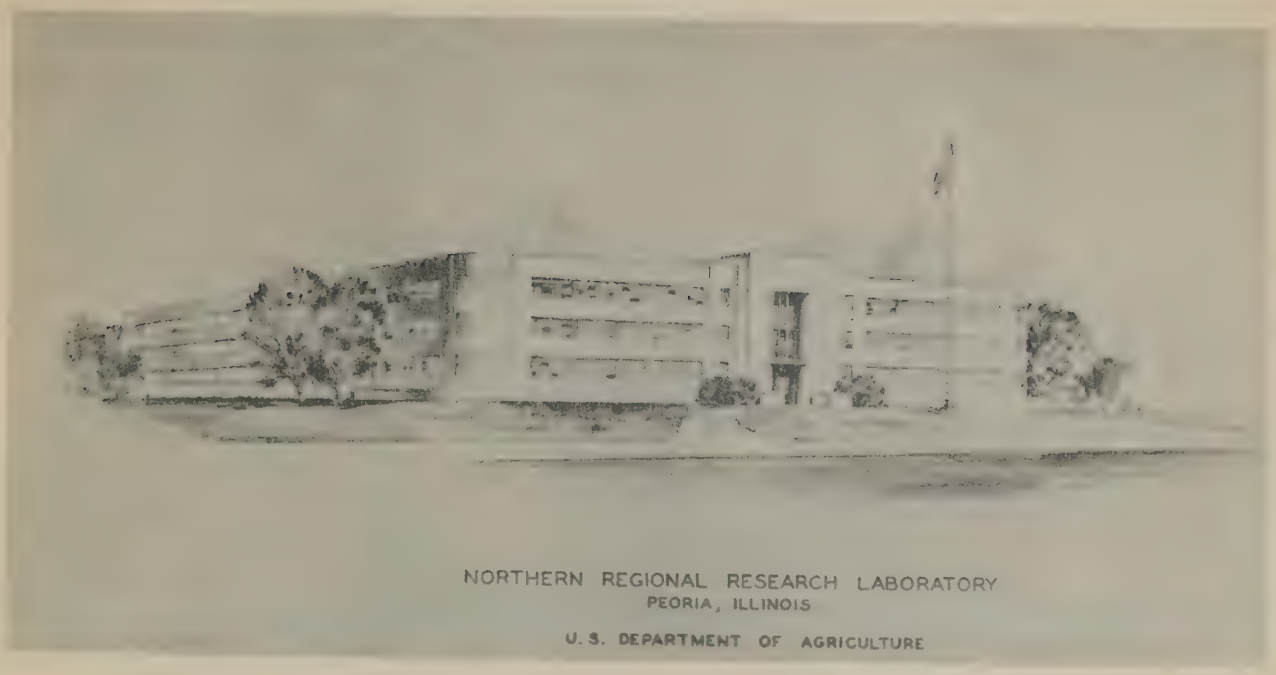
BUREAU OF CHEMISTRY AND SOILS

9-27-'38

approximately 210 feet wide and the two wings, one for the chemical laboratories and the other for the industrial laboratory or pilot plant operations, will be about 306 feet long. They will be of fire-resistant construction and all but the Western Laboratory will be air-conditioned. In each case one wing will contain research laboratories equipped for work in chemistry, physics, and biology, and the other will have a small number of laboratories and space for large-scale mechanical equipment and appliances. Offices, library, and conference room will be in the front section, and service shops and special research rooms in the basement. There will be room for the erection of individual pilot plants when they are needed. There will be separate power plants for the generation of steam. The Northern Laboratory will have semi-plant-scale equipment for the production and study of motor fuels.

About July 1, 1938, a staff of architects and engineers was set to work on plans and specifications for the laboratory building and equipment. Actual work on final plans and specifications was begun about January 1, 1939, and the first plans were in the hands of the bidders April 15, 1939. Bids for all four buildings had been accepted and construction work begun before June 30, 1939.

The next two pages show architects' perspective drawings of the laboratories.



Work was started on the Northern Regional Laboratory, Peoria, Ill., early in June with a year allotted the contractor to finish it.

The Southern Regional Laboratory, New Orleans, La., was started early in June. The contract calls for a finished job within 400 days

EASTERN REGIONAL RESEARCH LABORATORY
WYNDMOOR (PHILADELPHIA,) PENNSYLVANIA
U.S. DEPARTMENT OF AGRICULTURE

Started early in June, the Eastern Regional Laboratory at Wyndmoor, Pa., near Philadelphia, must be finished within 400 days.

WESTERN REGIONAL RESEARCH LABORATORY
ALBANY, CALIFORNIA
U.S. DEPARTMENT OF AGRICULTURE

The Western Regional Laboratory at Albany, Calif., now under construction, must be finished by early June, 1940.

On July 14, 1938, Secretary Wallace designated a special survey committee. His memorandum said in principal part:

MEMORANDUM NO. 765

Designating Special Survey Committee

There is hereby designated the following as a committee to assume responsibility for the survey referred to above, including the preparation of the report resulting from such survey:

Mr. H. T. Herrick, BCS, Chairman
Mr. P. V. Cardon, BPI
Mr. A. B. Genung, BAE
Dr. R. Y. Winters, OES

The purposes of this committee are:

(1) To conduct a survey of all research activities relating to the industrial utilization of agricultural products in the four regional areas to be served by the regional laboratories, such survey to include a study of the research projects of the Department of Agriculture and other Federal agencies, the State experiment stations, educational institutions, privately endowed research institutions, commercial consulting research laboratories, and the research laboratories maintained by industries based wholly or in part on utilization of agricultural raw materials, and report their findings to the Department.

(2) To assemble facts bearing upon suitability of proposed laboratory locations and make report thereon to the Department.

(3) To make recommendations to the Department as to the scope of investigations to be undertaken in these laboratories, and as to ways in which the research recommended may be coordinated with other activities in the same field.

The full report of the Special Survey Committee submitted to the Secretary of Agriculture early in April, 1939, was transmitted to the President of the Senate and published as Senate Document No. 65. It came off the press about August 10.

In the meantime Civil Service examinations were announced and directors were selected for the four laboratories:

For Nov. 21 papers. WASHINGTON, D. C.

GOVERNMENT SEARCHING FOR OUTSTANDING CHEMISTS FOR NEW LABORATORIES

- - -

The Department of Agriculture is in need of a number of Principal Chemists and Principal Chemical Engineers at salaries of $5,600 per year according to an announcement by the U.S. Civil Service Commission. The Department expects that the number will exceed 25.

Release Friday morning, Dec. 16.

WASHINGTON, D. C.

DIRECTORS NAMED FOR FARM RESEARCH LABORATORIES

- - -

Directors for the four farm research laboratories to be established by the Department of Agriculture to search for new and wider industrial outlets and markets for agricultural commodities were announced today by Dr. Henry G. Knight, Chief of the Bureau of Chemistry and Soils. They are:

Northern Laboratory, Peoria, Illinois — O. E. May
Southern Laboratory, New Orleans — D. F. J. Lynch
Eastern Laboratory, Philadelphia area — P. A. Wells
Western Laboratory, San Francisco Bay area - T. L. Swenson

Several weeks ago the Department announced the appointment of H. T. Herrick as assistant chief of the bureau, to have general supervision of the chemical and chemical engineering work in all four laboratories.

In a memorandum dated October 6, 1938, the Secretary of Agriculture gave authority to administer the regional research laboratories to the Bureau of Chemistry and Soils, and as a result of reorganization this authority is now in the Bureau of Agricultural Chemistry and Engineering. The following is an excerpt from the memorandum:

> (c) The Bureau of Chemistry and Soils is authorized and directed to administer the regional research laboratories established by the Department pursuant to the provisions of subsections (a) to (e), inclusive, of section 202 of the Agricultural Adjustment Act of 1938. This provision shall be subject to the provisions of Secretary's Memorandum No. 689 of March 16, 1936, defining the functions of Dr. J. T. Jardine, Director of Research, in planning and coordinating the research programs of the Department. It is the intent of this subsection that the operation of the regional research laboratories shall be the responsibility of the Bureau of Chemistry and Soils, while the planning and coordination of the research programs to be undertaken at the laboratories, whether by the Bureau of Chemistry and Soils or by other bureaus of the Department, shall continue to be the responsibility of the Director of Research with the cooperation of the bureaus involved.

The following pages show reproductions of photographs, news items, and news pictures recording actual beginnings of the construction work.

Modern Machinery Prepared Way for Northern Research Laboratory

BREAK GROUND FOR FARM LAB

Ground-breaking ceremonies yesterday at the North University st. site of Peoria's new farm laboratory attracted an interested crowd of spectators. In the top photograph is seen Dr. O. E. May (left) at the controls of the Caterpillar powered LeTourneau bulldozer which was used to turn the first earth. Dr. May will direct activities at the laboratory. Beside him, on the tractor, is H. T. Herrick of Washington, D. C., assistant chief of the United States bureau of chemicals and soils and principal speaker at the ceremony. In the lower picture is seen the temporary platform erected for the program with L. J. Fletcher, chairman of the Association of Commerce agricultural committee, at the microphone. Grouped behind him are speakers on the program, which officially launched work on the million-dollar structure. (Journal-Transcript Photo.)

Ground Broken For Farm Lab

Dr. May Operates Tractor

Continued From Page 1

turning of this first earth, we earnestly dedicate ourselves."

L. E. Brown, president of the Association of Commerce, described the co-operation by various groups in having the laboratory located here.

"The erection of a million-dollar building, somewhat spectacular at the moment, and certainly a most acceptable addition to our community, is but an incident as we consider what it means," he asserted.

"The laboratory and its equipment, and its staff and employes, mean that Peoria's growth and importance will be augmented more rapidly.

Visions Building

"New industries will be attracted, requiring new factories, new homes, new people, more employment, larger payrolls, increased retail sales — more of

Heads Research

H. T. HERRICK

P. A. Wells, Director of the Eastern Regional Laboratory, was present when the first shovelful of earth was moved in preparation for the building.

Beginning of the foundation of the Eastern Regional Laboratory. Photo taken About Aug. 1, 1939.

FARM LABORATORY PLAN COMPLETED

Work on First 2 Units Expected to Start This Summer

BY EDWARD E. WILCOX

(Staff Correspondent of The Bulletin)

Washington, April 5.—Bids for construction of the first section of the new farm research laboratory in Wyndmoor, Montgomery county, will be opened on May 19.

The bids cover the administration unit and the laboratory wing on a portion of the 32-acre Winoga

Springfield Women To Hear of Laboratory

The new Eastern Regional Research Laboratory of the United States Department of Agriculture, to be established in Springfield township, Montgomery county, will be discussed next Monuday before members of the Springfield-Whitemarsh League of Women Voters by R. E. Lothrop, acting director of the Federal project.

The meeting will be held at "Willow Dam," home of Mrs. Walter P. Maguire, Bethlehem pike and West Valley Green rd., Flourtown. The new Government laboratory, one of four to be erected in the United States, will be located on the former Winoga Stock Farms of the late E. T. Stotesbury, Mermaid and East lanes, Wyndmoor. A staff of approximately 250 will be employed.

LABORATORY CONTRACT LET

U. S. Farm Research Unit Planned at Wyndmoor

A low bid of $842,000 for the construction of a farm research laboratory at Mermaid and East lanes, Wyndmoor, for the U. S. Department of Agriculture won the contract for the Sordoni Construction Co., of Wilkes-Barre.

The laboratory, which will be built at the old Stotesbury farm, will experiment to discover new uses for ordinary products and means to produce more per acre. Work on the project, which includes an administration building, chemical laboratory, power house and service building, will be completed by August, 1940.

Press Shows Start of Southern Regional Laboratory

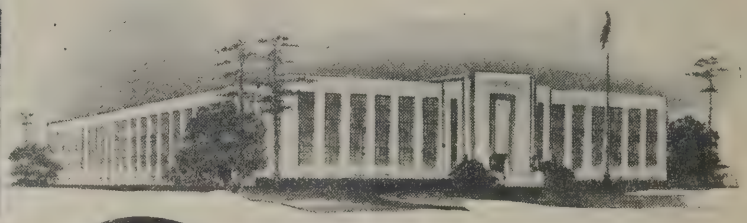
Here to Plan Research Laboratory

—Photo by The Time

Dr. D. J. Price (right), chief of the chemical engineering division of the bureau of chemistry and soils, depar agriculture, and H. T. Herrick, assistant chief of bureau, day said contracts for the proposed Southern regional laboratory at New Orleans would be awarded probably

This new laboratory is designed

For SOUTHERN FARM PROGRESS



The Research Laboratory (above) at New Orleans will try to find new and wider uses for Southern crops

Above—Senator Bilbo of Mississippi, "Daddy" of the Research Laboratories legislation

Bottom—D. F. J. Lynch, Director, Southern Laboratory. An authority on Southern crops

LAST YEAR Congress appropriated $4,000,000 to establish four Regional Research Laboratories to search for new and wider industrial outlets for farm products. These laboratories are to cost not more than a million dollars each and to have not more than a million dollars each annually for operation, and are to be located in the four major farm producing areas of the country, as follows: Southern, New Orleans, Louisiana; Northern, Peoria, Illinois; Eastern, Philadelphia, Pennsylvania; and Western, San Francisco, California.

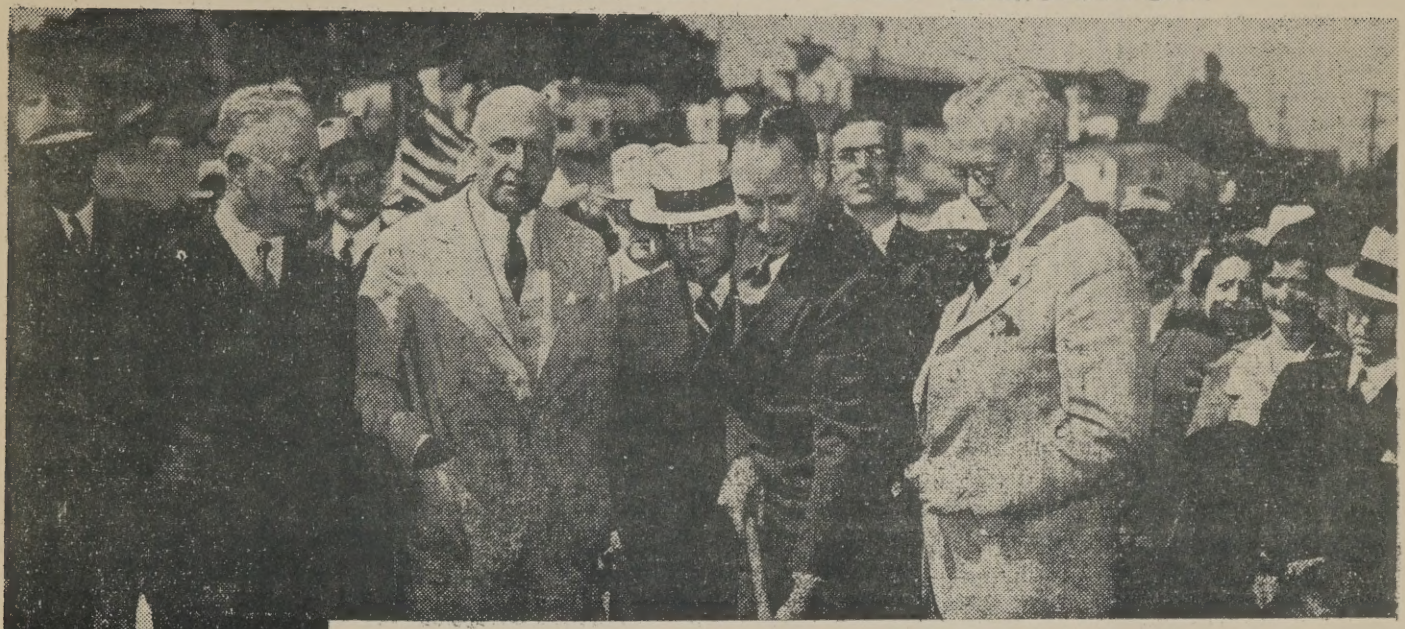
To begin with, the Southern Laboratory will try to find new and wider industrial uses for cotton, sweet potatoes and peanuts. A staff of around 200 scientists, largely chemists, will be employed in each of the laboratories. This is just one of several attacks on the national farm problem. It is a good one, and SOUTHERN AGRICULTURIST wishes these laboratories success in this new and important undertaking.

—Photo by The Times-Picayune.

Workmen began clearing the ground on Robert E. Lee Boulevard near the lakefront Wednesday, preliminary to erection of the Southern Regional Research Laboratory. The building, to be constructed by the A. J. Rife Construction Company of Dallas, Tex., will be between Marconi Drive and Bayou St. John.

Earth Turned for Western Regional Laboratory

EARTH TURNED FOR ALBANY CROP LABORATORY



Groundbreaking ceremonies w
for a $1,000,000 Western regi
Participating were (left to rig
cott, Albert Paul, of the Calif

DEDICATED TO WESTERN AGRICULTURE

R. H. Nagel and Dr. T. Lowell Swenson (right) visited the Albany site of the proposed laboratory of the U.S. Department of Agriculture, and disclosed plans for the $1,000,000 building.


AGE